

## **SINGLE WING DEFLECTOR:**

### **Description**

The work covered by this section consists of the construction and maintenance of physical barriers placed in and along the stream at locations designated on the plans to direct the stream flow (thalweg) toward the center of the channel.

The quantity of single wing deflectors to be installed will be affected by the actual conditions that occur during the construction of the project. The quantity of single wing deflectors may be increased, decreased, or eliminated entirely as directed. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

### **Materials**

Refer to Division 10

<b>Item</b>	<b>Section</b>
Boulder	1042 and SP for Structure Stone
No. 57 Stone	1005
Riprap, Class A	1042-1
Geotextile for Drainage, Type 2	1056

Boulders shall be used as header and footer rocks for this device.

### **Construction Methods**

Single wing deflectors shall be constructed according to the Single Wing Deflector Detail shown on the plans or as directed. A vane approximately 1/3 of the stream channel's bankfull width will form a 20°– 30° angle out from the streambank toward upstream. The top elevation of the vane will decrease from one half of bankfull elevation down to the streambed elevation and toward the center of the channel at a slope of 4 to 20 percent. A vane running parallel to the stream's flow along the center third of the stream channel will connect to the outside vane on the upstream end. The top elevation of the parallel vane will be at the stream bed elevation at zero percent. At the upstream end of these vane running parallel to the stream's flow, a vane approximately 1/3 of the stream channel's width will form a 20°– 30° angle back toward the streambank and toward upstream. The top elevation of this vane will be at the stream bed elevation at zero percent. Install header and footer rocks according to the detail and plate the upstream side with Type 2 Geotextile and No. 57 stone. Voids between the header and footer rocks can be filled with hand-placed Class A riprap as directed. Footer rocks shall be placed such that the header rock is at streambed elevation. The single wing deflector shall be keyed into the bank at the downstream end as shown on the Single Wing Deflector Detail.

## **Measurement and Payment**

*Boulders* will be measured and paid for as provided elsewhere in this contract.

*No. 57 Stone* will be measured and paid for as provided elsewhere in this contract.

*Riprap, Class \_\_\_* will be measured and paid for in accordance with Article 876-4 of the *Standard Specifications*.

*Geotextile for Drainage* will be measured and paid for in accordance with Article 876-4 of the *Standard Specifications*.

Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to construct the single wing deflectors.